Pace of Lending Issues Regarding State Revolving Funds

The objective of this advisory report is to place pace of lending issues within a perspective which encourages State Revolving Funds to maximize present and future environmental benefits. The issue of lending pace in the State Revolving Fund (SRF) program is a complex one, and the criteria developed to measure it can be crafted to measure some of these complex issues as well. In its 1996 Clean Water Needs Survey, USEPA estimated the nationwide capital costs eligible for Clean Water Act SRF funding at $139.5 billion over a twenty-year horizon. The magnitude of needs presents EPA and the states with challenges for managing existing funds.

Evaluating whether an SRF program's lending pace is appropriate involves measuring not only whether an SRF has applied its resources in an efficient fashion historically but also whether the SRF is taking all steps necessary to ensure program resources will be available to meet identified and documented future needs. This involves meeting current needs while ensuring that the SRF is being managed in a way which increases available resources to meet pressing environmental needs in the future.

How Should SRF Funds and Lending Activity Be Measured?

USEPA reports SRF lending activity at approximately 84 percent of available funds.[1] USEPA measures available funds as federal capitalization grants, state matching funds, loan repayments, leveraged bond proceeds and investment earnings net of debt service paid on leveraged and state match bonds, administrative expenses and funds held in debt service reserves. Among states, lending activity based on this cash definition of available funds varies, not only because of differing rates of loan origination but also because of the different SRF structures in existence today. It is therefore important to use an alternative measure that evaluates performance consistently across SRFs. For this purpose, we suggest an additional way of measuring SRF pace of lending: a balance sheet view of assets, liabilities and SRF program equity against which to measure loan activity. This measurement is illustrated by the two examples below, which assume a $1,000 federal capitalization grant and a $200 state match contribution for both a direct loan program and a program which leverages its capitalization to provide two times the loans through a cash flow model:

[1] Source: USEPA, Progress of the Clean Water State Revolving Fund Program -- 1998.

Direct Loan Program			
Assets[2]		Liabilities[3]	
Loans	$1,200	Equity	$1,200

Leveraged Program			
Assets		Liabilities	
Loans	$2,400	Bonds	$1,200
		Equity	$1,200

Over time, loan repayments and interest earnings increase cash or investment assets as well as program equity. With the leveraged program, as loans and bonds are repaid, loan assets decrease, cash, investments and equity increase and bond liabilities decrease. With this comprehensive look at a program's balance sheet, it is possible to calculate the relevant lending statistics for each SRF program, such as loans funded per dollar of equity in the program. For the direct loan program in this example, the loan to equity ratio is 1:1. For the leveraged program, it is 2:1. This approach ensures that the totality of a SRF's lending activities is measured. We have found, for instance, that certain SRF loan activities integral to fund management are not included in USEPA's accounting of SRF lending as illustrated by the New York State case study in the Appendix.

Measuring SRF loans against fund equity provides an alternative measure from USEPA's cash accounting focus. A rough estimate of program equity at the national level is $16.98 billion, which includes federal capitalization grants and state matching funds contributed to SRFs since 1987 (this ignores investment income and interest repayments which need to be factored into the equation as well). Against this estimated equity base, $22.920 billion of loans have been made through the SRF program nationwide. This represents a *35% increase in funding over a direct loan or grant program.*

Since equity measures an SRF's net worth, reporting lending against program equity provides an indication of the creativity and efficiency with which an SRF has been able to apply SRF assistance toward environmental projects. Once all priority demand has been met by an SRF, fund managers should be encouraged to maximize earnings within a fund. Loan-to-equity ratios will serve as an incentive to ensure that the maximum amount of SRF funding is made available and is used to fund eligible projects. Quantifying program equity has the added advantage of helping judge whether a revolving fund program is working to internally increase its resources to meet current and future loan

[2] Assets constitute financial representations of economic resources owned by an organization or individual. These are simplified illustrations of assets for a State Revolving Fund which assumes 100% of the SRF's resources have been converted into loans. In an instance where that is not the case, cash and investments would also be reflected in the asset side of the ledger, whether the cash or investments are derived from loan repayments, investment earnings, federal capitalization grants or state contributions.

[3] Liabilities constitute debt or other legal obligations arising out of transactions in the past which must be liquidated, renewed, or refunded at a future date. Equity or retained earnings comprises the accumulated earnings of an enterprise or fund which have been retained in the fund and which are not reserved for any specific purpose. The equity in these simplified examples represents federal grants and state match contributions.

demand. Thus, this measurement encourages continued SRF innovation and the judicious management of funds to address unfunded environmental needs.

A focus on equity also assists in measuring the impact of leveraging on SRF lending capacity over the long-run. While various models have been set forth for quantifying the impact of leveraging on SRF loan capacity, a measure of fund equity factors in both the impact of inflation on SRF purchasing power and the cost of forgone earnings associated with leveraging.

Incorporating Time Factors into Pace of Lending

As a historical measure, USEPA's definition of available funds is not able to fully capture the dynamic nature of SRF lending - i.e. projected loan needs, the availability of additional federal and state match funding, projected investment income, etc. Given the current funding methodology for SRFs, it is appropriate for administrators to manage SRF assets such that internal capital is generated.

Given the significant mass of unfunded needs, USEPA and the SRFs need to emphasize a longer term funding timeframe. One approach is to incorporate, in addition to the existing cash-based definition of available funds, an estimate of unfunded environmental needs within a state. This measurement will capture, in present value terms, the gap between project needs (both current and future) against program equity (both existing and future estimated). This approach is consistent with the planning and funding methodologies used by funds established to meet current and long-term funding requirements, such as pension funds.

The similarities between SRFs and pension funds provide a relevant basis for measuring SRF pace of lending. SRFs were established to help fund the widespread needs clearly identified by USEPA in its Clean Water Needs Survey. To the extent that a state's SRF equity today falls short of the present value cost of projects which need to be funded by the SRF pursuant to well-researched project costs such as the 1996 Clean Water Needs Survey, then the SRF should be focused not only on meeting current needs but also on the development of capital to meet future demand. To the extent that SRFs show unfunded needs, prudent funds management to increase internally generated funds, as well as additional federal and state funding is justified.

The case studies included in the Appendix demonstrate the challenges SRF administrators face in managing future demand in the face of uncertain future funding levels. The case studies, however, do not purport to be exhaustive in their description of all variables, including all funds that may be made available to SRFs in the future for meeting loan demand. One case study illustrates how the State of Texas ensures consistent funding availability over a long period of time in the absence of additional external funding sources by managing the amount of loans funded in any given year. Other states, such as New York, have identified sizeable priority projects in the near future which require resources beyond those available to the SRF absent Clean Water Act reauthorization.

Cash Balances are Important for SRF Day-to-Day Management

Beyond the longer term issues of matching SRF equity with unfunded environmental mandates, it is important to recognize that, in the short-term, SRFs need to maintain cash balances for short term bridge loans and to meet unfunded loan commitments. Any single cash-based measure of available funds should not reflect 100 percent commitment of funds. Prudent funds management dictates that cash on hand be reserved to ensure that loan commitments can be funded as promised. Also, for those states that leverage their federal grant and state match funds, cash on hand is a rating agency credit issue which, depending on the leveraging model used by a particular state, can become a significant ratings concern.

The situation in Minnesota illustrates the problem of only looking at cash balances to judge the performance of the program. Information provided in USEPA's "1998 Status Report on the SRF Programs" indicates that the State of Minnesota has, since July 1, 1987, provided $645.5 million in CWSRF assistance. The Report also shows the State with available funds of $733.9 million, leading the reader to conclude that the SRF had a surplus of funds totaling $88.4 million as of June 30, 1998. The Report, however, excludes $256 million in projects approved for placement on Minnesota's 1999 IUP for which funding must be available when the projects are ready to proceed. After accounting for those projects, there is no real "surplus" of funds. In fact, the Minnesota SRF will have to secure further funding up to $167 million to finance these tentative project commitments.

As discussed in the case study in the Appendix, the State of Texas maintains cash on hand to meet loan obligations between leveraged bond offerings.

Encouraging Demand for SRF Loans to Absorb Available Funds

USEPA has stated that "In cases where demand for SRF funds falls short of funds available, Regional offices need to work with those states to make appropriate changes to the SRF program, including developing loan programs for nonpoint source and estuary projects, restructuring interest rates and/or fees, discontinuing the issuance of leveraged bonds, increasing marketing efforts, or providing technical assistance to help applicants apply for loans, among others."

While these general recommendations may make sense for certain SRFs (particularly those not facing large unfunded needs), they should not be applied unilaterally. SRFs have established strict credit guidelines for loan generation to minimize defaults and ensure corpus integrity. Many nonpoint source and estuary projects may have dedicated repayment sources which are not fully creditworthy and which would not be fiscally prudent to include in a loan program. SRF credit guidelines have contributed to the high credit ratings which SRF bonds enjoy, which in turn reduce interest costs and help ensure long-term fund availability. Similarly, restructuring interest rates and fees may jeopardize a program's ability to meet future demand and constrain critical management resources.

An advantage of the equity-based performance approach recommended previously is that as SRF program equity increases, the credit profile of the SRF will strengthen along with its ability to finance environmental activities which on their own might not be as creditworthy. However, only by maintaining a very strong credit profile for the basic SRF, can more funding for brown- fields, nonpoint source, estuary systems, watersheds and the like be increasingly attainable.

Conclusion

Innovation, the cornerstone of SRF Programs, has gone a long way to provide more funding for the environment than has been made available through capitalization grants by the federal government and the states. Our objective, therefore, is to recommend a performance framework which continues to encourage this record of progress through the creation of capital and the funding of environmental priorities today and in the foreseeable future.

Quantitatively, we recommend certain enhancements to the measurement of lending pace. First, consistent measurement across differently-structured SRFs can be achieved by measuring lending relative to program equity. Second, the uncertain nature of future federal funding requires that states manage their SRFs so as to ensure that priority projects can be financed now but also in the future. A historical measurement of fund expenditures which does not account for future needs is in conflict with the need to fund priority projects. Implementing an unfunded needs measure akin to those used by pension funds will help EPA and the states measure lending pace against demonstrated needs over a period of time. A longer term planning model is more consistent with the planning timeframe used by most SRF administrators today and will assist the SRFs in targeting their scarce resources to maximize environmental benefits. Third, the cash definition of available funds should adjust for projects which, while not funded, have been committed to by a State through its Revolving Fund. The definition of available funds needs to also recognize that in managing a loan program SRFs need to maintain certain levels of cash reserves on hand so that loans can be financed while leveraged bonds are being structured and sold to the marketplace. Finally, SRF lending criteria should remain focused on the creditworthiness of revenues dedicated to loan repayment. This will protect federal and state investment in the environment in the long run and increasingly make funding available for priority projects with weaker credit profiles.

EFAB presents these considerations and its analysis of the pace of lending issue in a constructive and positive spirit. The Board believes that ongoing and open dialogue between the states and the Agency is essential to continued success of the SRF program.

Appendix

The New York State Revolving Fund Program

USEPA information provided in its "1998 Status Report on the SRF Programs" indicates that New York State has provided $3.519 billion in CWSRF assistance. However, USEPA's computer system does not report short-term loans provided by New York's CWSRF. New York EFC has made in excess of $400 million of CWSRF short-term loans, bringing the State's total loans to approximately $4 billion. With these funds more than 500 loans have been made on behalf of 1,095 projects. (USEPA shows only 334 assistance agreements because it does not include the CWSRF short-term loans.)

USEPA's report also shows the amount of assistance provided by the individual states as a percent of the amount of funds available. Unfortunately, this is a misleading figure for two reasons: first, as noted above, New York's figures do not include approximately $400 million of short-term loans – which, if added to the USEPA numbers would show that New York has used 84 percent of its funds available, exactly the national average; and second, USEPA makes no distinction between states which leverage their programs and those that do not. As of June 30, 1998, twenty-two states had leveraged their programs to some degree.

Additional USEPA data show that New York had provided CWSRF assistance equal to 164 percent of capitalization funds available. If the CWSRF short-term loans are included, the amount of assistance that has been provided actually totals 186 percent of funds available.

New York's CWSRF currently has substantial unallocated funds, derived from recycled capitalization funds and from interest earnings. These monies are invested to earn interest which will assist the CWSRF to maintain pace with inflation, and more importantly, have been identified as required for high priority, high cost projects which will make extraordinary demands on the CWSRF in the near future. With no current federal authorization of future CWSRF funding, it has been imperative for New York to manage its CWSRF to ensure that funds will be available for critical projects when those projects are ready to proceed to construction. Two examples of this sort of project are the Onondaga County Metro Project which is designed to significantly improve water quality in Onondaga Lake, and the Newtown Creek project which will have an important water quality impact on Long Island Sound.

Onondaga County Metro/CSO Abatement Plan: Onondaga County has agreed under the terms of an Amended Consent Judgment (ACJ) to construct a number of projects that will help to restore Onondaga Lake's water quality. Currently, $407 million of Metro projects are listed on the multi-year project list of the CWSRF Intended Use Plan; the projects will be

of wastewater treatment projects listed in the multi-year project list which are not included in the ACJ.

New York City - Newtown Creek: The City of New York has agreed, under the terms of a Modified Judgment on Consent, to upgrade and expand the Newtown Creek Wastewater Treatment Facility which serves a portion of Manhattan and Brooklyn. Construction of the facility is estimated to cost over $1.5 billion and will be accomplished in four phases starting in 1999 and ending in 2007. In addition, the multi-year project list includes numerous wastewater treatment projects at various locations throughout New York City, amounting to $3.4 billion.

With no assurance of additional federal capitalization funds for the CWSRF, New York State is managing its current CWSRF funds to ensure these projects will receive the financing necessary to ensure their completion.

The Texas Clean Water State Revolving Fund

The Texas Water Development Board runs a capacity model to determine the level of annual loans that may occur while maintaining viable program funding at consistent levels over an extended period (at least 21 years). This, of course, includes maintaining the corpus of the program intact. Lending capacity would be higher today if additional federal funding could be assumed, but the Texas program is constrained by the fact that additional federal funding cannot be projected beyond the current reauthorization period. Since maintaining a consistent program over a reasonable horizon is a principal objective for Texas, annual lending must be monitored and limited carefully. While the program is leveraged to fund approximately $332 million per year, actual loan demand exceeds $600 million. Clearly, the State of Texas' self-imposed constraint on the "pace" of the overall program is based upon the intention of the Clean Water Act to allow states to leverage their programs, but in a manner that is consistent with its long term viability. For Texas, pace is a factor of future needs as well as current needs.

A second major point is that all funds were considered by USEPA in reviewing funding "pace". This included leverage bonds as well as USEPA funds and state match funds. Texas funds loans with leverage bond proceeds and other funds on hand when applicants are ready to close on their loans. Federal funds are drawn after each closing based upon invoices submitted for designated

federal projects. Texas looks at all funding sources and maintains a running tally of expected loan closings by date. Since funds provided at closing are not derived exclusively from federal funds, federal funds are only one of many projected income flows considered in determining when and how much funding is anticipated in a given time horizon. Leverage bond proceeds are used to fill any gaps between loan demand and available funds. The process of issuing bonds takes 2 to 3 months, and sufficient bond proceeds are raised each time to meet program needs over the ensuing 6 months. This requires that Texas start the bond leveraging process while funds are still on hand to assure that loans can continue to close seamlessly. Under USEPA's existing methodology, funds held on hand to ensure continuous loan generating capacity between bond issues can misleadingly indicate surplus funds not used to originate loans.

This however is a requirement of sound financial management to assure that funds are always available to close loans (on a continuous basis). In fact, Texas commences issuance of new debt to fund loans when 80 to 83 percent of funds on hand have been expended